UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,320	09/11/2003	Ernst A. Munter	NOR-146 (12748ROUS01U)	3794

32836 7590 12/28/2007		EXAMINER	
GUERIN & RODRIGUEZ, LLP		TSEGAYE, SABA	
5 MOUNT ROYAL AVENUE		ART UNIT	PAPER NUMBER
MOUNT ROYAL OFFICE PARK		2619	
MARLBOROUGH, MA 01752			

MAIL DATE	DELIVERY MODE
12/28/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 June 2007*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   This Office Action is in response to the amendment filed 09/27/07. Claims 1-25 are

pending. Currently no claims are in condition for allowance.

Claim Rejections - 35 USC § 112

2.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the
> subject matter which the applicant regards as his invention.

3.   Claims 1-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for

failing to particularly point out and distinctly claim the subject matter which applicant regards as

the invention.

Claims 1-25 are vague and indefinite since the variables p, k, t, are undefined (are they

integers, zero, negative numbers?).

Claim Rejections - 35 USC § 102

4.   Claims 1- 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Fisher et al. (US

2002/0039362 A1).

Regarding claims 1 and 25, Fisher discloses, in fig. 6, a communications switch for

switching data between inputs (s0-s3) and outputs (d0-d3), said communications switch

comprising:

P (s0-s3) inputs each for receiving data to be switched to q outputs (d0-d3);

p+k information storage buffers (t (0, 0)-t (3, 1)) each of said information storage buffers

comprising p+k storage locations (t (0, 0)-t (3, 1));

an input data conditioner (152, 154, 162, 164), comprising p inputs and p+k outputs, connected between said p inputs of said communications switch and said p+k information buffers (t(0,0)-t(3,1)), for distributing data received at said p (s0-s3) inputs of said input data conditioner to its p+k outputs (see fig. 6; 0049);

an ingress commutator (90, 92, 94, 96) for interconnecting each of said p+k information storage buffers to one of said p+k outputs of said input data conditioner (see fig. 6; 0049-0051);

an output data conditioner (156, 158, 166, 168) comprising p+k inputs and q (d0-d3) outputs, for distributing data from its p+k inputs to its q (d0-d3) outputs (see fig. 6; 0049-0051);

an egress commutator (120, 122, 124, 126) for interconnecting each of said p+k information storage buffers (t(0,0)-t(3,1)) to one of said p+k inputs of said output conditioner (156, 158, 166, 168); said ingress commutator (90, 92, 94, 96) operable to cyclically interconnect each of said p+k outputs of said input data conditioner (152, 154, 162, 164) to each of said p+k information buffers (t(0,0)-t(3,1)) to provide data from said each of said p+k outputs of said input data conditioner (152, 154, 162, 164) to said p+k information storage buffers (t(0,0)-t(3,1)), said egress commutator (120, 122, 124, 126) operable to cyclically interconnect each of said p+k information storage buffers (t(0,0)-t(3,1)) to said p+k inputs of said output data conditioner (156, 158, 166, 168) to provide data from said p (s0-s3) inputs to said q (d0-d3) outputs (see fig. 6; 0049-0051).

Regarding claims 2 and 14, Fisher discloses the switch of claim 1, where p = q (see fig. 6).

Regarding claims 3, 15 and 16, Fisher discloses the switch wherein the ingress

commutator is clocked at a rate to transfer less data to each of the p+k information storage

buffers during a time interval than is received at each of the p inputs during the time interval

(0044; 0046).

Regarding claim 9, Fisher discloses the switch (150, 160) wherein said output data

conditioner (156, 158, 166, 168) comprises k one input, p output switches, each for switching

data from its input to one of its p outputs (see Fig. 6).

Regarding claim 13, Fisher discloses a communications switch (see Fig. 6), comprising:

p inputs (s0-s3) and q outputs (d0-d3);

a rotator switch comprising a (p+k)x(p+k) switch fabric (150, 160);

an input data conditioner (152, 154, 162, 164) for distributing data received at the p

inputs to that switch fabric (0048);

an output data conditioner (156, 158, 166, 168) in communication with the switch fabric

for distributing data received from the switch fabric to the q outputs (d0-d3).

Regarding claim 17, Fisher discloses a method of switching data between p (s0-s3) inputs

and q outputs (d0-d3), comprising: distributing data from said p inputs to p+k intermediate inputs

(demultiplexer 152, 154, 162, 164 connected to each commutator 90, 92, 94, 96); loading data

from said p+k inputs into p+k tandem buffers (t(0,0)-t(3,1)), each of said tandem buffers (t(0,0)-

t(3,1)) comprising p+k storage locations; unloading one location of each of said p+k tandem

buffers at one of p+k intermediate outputs (each tandem buffers connected to each output commutator 120, 122, 124, 126); combining data from said p+k intermediate outputs to provide switched data from said p inputs at said q outputs (see fig. 6; 0048-0051).

Regarding claim 18, Fisher discloses the method further comprising cyclically interconnecting the p+k tandem buffers (t(0,0)-t(3,1)) with the p+k intermediate inputs (demultiplexer 152, 154, 162, 164 connected to each commutator 90, 92, 94, 96) and the p+k intermediate outputs(each tandem buffers connected to each output commutator 120, 122, 124, 126) (see fig. 6; 0049-0051).

Regarding claim 19, Fisher discloses the method wherein data is loaded into said tandem buffers at a rate (B/2) lower than a rate (2B) of traffic arriving at each of said p inputs (0044; 0049).

Regarding claim 20, Fisher discloses the method wherein data is loaded into all of said tandem buffers at a rate at least equal to a rate of arrival of data at all of said p inputs (0049).

Regarding claims 22 and 24, Fisher discloses the method wherein at least some of said data is transferred to a selected location of an interconnected tandem buffer, the location based on a destination for said at least some of said data and stripping header from data (0028).

Regarding claim 23, Fisher discloses the method further comprising combining data into

data units, and including a header in each of said data units, each header including destination

information and a sequence number for said each of said data units (0028; 0039; 0046).

Regarding claims 4-8, 10-12 and 21, they are math equations, which do not show

uniqueness and are not critical to the invention.

Response to Arguments

5.   Applicant's arguments with respect to claims 1-25 have been considered but are moot in

view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Saba Tsegaye whose telephone number is (571) 272-3091. The

examiner can normally be reached on Monday-Friday (7:30-5:00), First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Wing Chan can be reached on (571) 272-7493. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Saba Tsegaye
Examiner
Art Unit 2619

ST
December 20, 2007

WING CHAN 12/21/07
SUPERVISORY PATENT EXAMINER